CLAIMS:

1. A method for treating a surface of a solid substrate to chemically alter contaminants on the surface capable of being oxidised by hydroxyl radicals, the method comprising applying to the surface particles of a zero valent metal capable of reacting with oxygen and water to form hydroxyl radicals, and exposing the particles to oxygen and water to form hydroxyl radicals at or near the surface.

2. The method according to claim 1, wherein the zero valent metal particles are applied to the surface as dry particles.

3. The method according to claim 2, wherein the zero valent metal particles are exposed to oxygen and water by exposing the zero valent metal particles to the air.

4. The method according to claim 1, wherein the zero valent metal particles are applied to the surface by applying to the surface a mixture comprising the zero valent metal particles and water.

5. The method according to claim 4, wherein the zero valent metal particles have an average primary particle size in the range of from 0.5 to 3000 nm, and wherein the mixture comprising the particles and water is sprayed onto the surface.

6. The method according to claim 1, wherein water is applied to the surface before, after or simultaneously with the application of the zero valent metal particles to the surface, so as to form a mixture comprising the zero valent metal particles and water on the surface.

7. The method according to any one of claims 4 to 6, wherein the zero valent metal particles are exposed to oxygen by exposing the mixture comprising the zero valent metal particles and water to the air.

8. The method according to any one claims 1 to 7, wherein the zero valent metal particles are applied to the surface in the presence of air.

9. The method according to any one of claims 1 to 8, wherein the zero valent metal capable of reacting with oxygen and water to form hydroxyl radicals is zero valent iron or zero valent copper.

10. The method according to any one of claims 1 to 9, wherein the zero valent metal capable of reacting with oxygen and water to form hydroxyl radicals is zero valent iron.

11. The method according to any one of claims 1 to 4 or 6 to 10, wherein the zero valent metal particles have an average primary particle size in the range of from 0.5 to 3000 nm.

12. The method according to any one of claims 1 to 10, wherein the zero valent metal particles have an average primary particle size in the range of from 5 to 2000 nm.

13. The method according to any one of claims 1 to 10, wherein the zero valent metal particles have an average primary particle size in the range of from 10 to 1500 nm.

14. The method according to any one of claims 1 to 10, wherein the zero valent metal particles have an average primary particle size in the range of from 10 to 500 nm.

15. A method for treating a surface of a solid substrate to chemically alter contaminants on the surface capable of being oxidised by hydroxyl radicals, the method comprising applying to the surface a mixture comprising water and particles of zero valent iron or zero valent copper in the presence of air, wherein the particles of the zero valent iron or zero valent copper have an

average primary particle size in the range of from 0.5 to 3000 nm.

16. The method according to claim 15, wherein the particles of zero valent iron or zero valent copper have an average primary particle size in the range of from 5 to 2000 nm.

17. The method according to claim 15, wherein the particles of zero valent iron or zero valent copper have an average primary particle size in the range of from 10 to 1500 nm.

18. The method according to claim 15, wherein the particles of zero valent iron or zero valent copper have an average primary particle size in the range of from 10 to 500 nm.

19. Particles of a zero valent metal when used in the method of any one of claims 1 to 18.